



FIBER LASER CUTTER MS SERIES



Product Overview

Mintech MS Series Fiber Laser Cutting Machines are precision engineered, high-value metal cutting systems ideal for small batch, mixed model, and custom fabrication jobs. Designed for North American workshops and job shop environments, MS Series machines deliver consistent, high quality results and offer flexible laser power configurations from 1500W to 6000W. Compatible with leading fiber laser sources such as Raycus, Max, IPG, the MS Series is perfect for sheet metal cutting, custom parts, signage, and light fabrication projects.

Key Features:

1. Compact Footprint and Smart Structure
 - The MS Series features an open-style single worktable that minimizes floor space while maximizing the work area.
2. Flexible Laser Source Configurations
 - Supports fiber lasers from 1500W to 6000W (and higher), enabling efficient cutting of thin sheet metal through thicker plates.
3. Precision Motion and High-Speed Cutting
 - The servo-driven high-precision transmission system (helical rack with servo control) delivers stable, accurate, and repeatable motion.
4. Integrated Cooling and Dust/Fume Control
 - An industrial-grade chiller maintains laser and optics temperature for stable output.
5. Advanced Control System – FSCUT2000E
 - Equipped with FSCUT2000E laser control software featuring high-speed EtherCAT communication
6. User-Friendly HMI and Optional Automation
 - An industrial all-in-one touchscreen PC interface provides intuitive, easy control.

Applications:

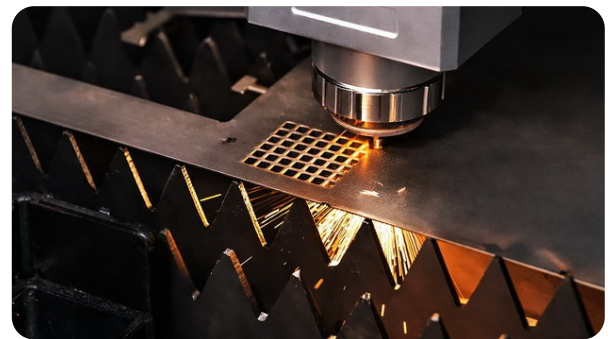
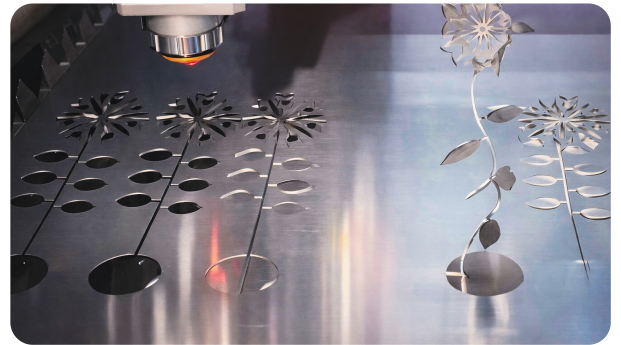
- Sheet Metal Fabrication & Industrial Enclosures
- Metal Parts & Hardware Manufacturing
- Automotive Aftermarket & Custom Fabrication
- Signage, Metal Art & Architectural Metal Work
- Light Metal Structures & Components

Why Choose MS Series

- Space-efficient design
- Cost-effective for small to mid volume production
- Flexible power and configuration
- High cut quality and repeatability
- Scalable automation options
- Environmental and operator safety compliance

Applicable Materials

- **Carbon Steel —**
 - Primary cutting material for fabrication, structural parts, brackets, enclosures, and general manufacturing.
- **Stainless Steel —**
 - Ideal for signage, food-grade equipment, architectural components, and corrosion-resistant applications.
- **Galvanized Steel —**
 - Suitable for HVAC, ducting, and coated sheet metal applications.
- **Aluminum —**
 - Supports cutting of aluminum sheet and plate for industrial, automotive, and commercial parts.
- **Brass & Copper —**
 - Light cutting and engraving of non-ferrous metals used in electrical, decorative, and precision components.



Technical Specifications

Model	MS48	MS510
Working area	48" × 96" (1220 × 2440 mm)	60" × 120" (1500 × 3000 mm)
Countertop weight	≤ 2200lbs (≤1000KG)	≤ 2200lbs (≤1000KG)
Dimensions	157" × 79" × 52" (4000 × 2000 × 1310 mm)	178" × 90" × 52" (4530 × 2280 × 1310 mm)
Weight	2640 lbs (1200kg)	3115 lbs (1413kg)
Laser Power Options	1500W – 6000W	
Power and Utility Requirements	220V Single/Three Phase, 480V Three Phase Note: ◦ 1500W, 2000W and 3000W models support single or three phase power for flexible installation in North American shops ◦ 6000W models use three phase / 480V for stable high power operation.	
Control System	BOCHU FSCUT2000E	
Communication interface	USB, RJ45, u-disk	
Environmental Requirements	• Temperature: 10°C- 30°C (50°F - 86°F) • Humidity: ≤ 70%	
Laser Class	CLASS IV	
Cooling method	Water Cooling	
Air Requirements	• Air: 6 - 10 bar / 0.5 – 3 m³/h (0.3- 2CFM) • O₂: 6 - 12 bar / 3 - 10m³/h (2 - 6CFM) • N₂: 6 - 10 bar / 10 - 20 bar / 5 - 30m³/h (3 - 18CFM)	
Transmission mode	Helical rack & square guide rail	
Focusing method	Automatic	
Optical system	Fiber optic transmission	
Maximum acceleration	0.8G (39ft / s², 12m / s²)	
Maximum speed	328ft / min (100m / min)	
Positioning accuracy	±0.003" / ft (±0.05 mm / m)	
Repeatability	±0.03 mm	
Laser life	Two-year warranty	
Optional equipment	• Air compressor for optical fiber cutting machine • Fume collection system	

Maximum Cutting Thickness — MS Series:

Material	1500W	2000W	3000W	4000W	6000W
Mild Steel	12 mm (0.47")	16 mm (0.63")	22 mm (0.87")	25 mm (0.98")	25 mm (0.98")
Stainless Steel	6 mm (0.24")	8 mm (0.32")	10 mm (0.40")	12 mm (0.47")	20 mm (0.79")
Aluminum	5 mm (0.20")	6 mm (0.24")	8 mm (0.32")	10 mm (0.40")	16 mm (0.63")
Brass	5 mm (0.20")	6 mm (0.24")	6 mm (0.24")	8 mm (0.32")	12 mm (0.47")